



## HEALTH TOPICS A - Z

### ACNE

Acne vulgaris is the most common human skin disease. 80% or more of teenagers and young adults have at least some acne, and acne can persist well into the thirties and forties (especially in women). Fortunately, there are many excellent treatments for acne now that did not exist when your parents (and even your doctors) were teens. So if your folks tell you that nothing can be done to help your acne, don't believe them!

Acne is a disease of the hair and oil apparatus (pilosebaceous unit) of the skin. Hormones (especially testosterone, the "male" hormone that is produced by both men and women) cause oil (sebum) production. When oil glands get plugged with skin cells (keratin), inflammation and infection occur, and the result is acne.

Commonly, acne consists of closed comedones ("pimples") and open comedones ("blackheads"). However, when acne gets severe, it can cause painful nodules and cysts in the skin and can lead to lifelong pitting and scarring. The key is to start treatment before the damage is done.



Treatment of acne involves targeting the causes: plugging, inflammation and infection. Many different medications are available:

**Benzoyl peroxide 2.5%, 5% and 10% creams, lotions, washes and gels:** Applied once to twice a day, benzoyl peroxide inhibits bacteria and causes a (usually mild) peeling of the face. Some patients are sensitive or even allergic to it, however. Some versions are available over-the-counter (OTC).

**Retin-A (tretinoin) creams, gels and liquids:** Retin-A also unclogs pores by a peeling of the face, and can be very effective against acne. Retin-A must be applied only at night and washed off in the morning, since it sensitizes the skin to the sun. Often a sunscreen (SPF 15 or higher) is advisable during the day. Although some patients can't tolerate Retin-A either, many show a significant improvement at 4 to 6 weeks, with optimal benefits at 3 months.

**Topical antibiotics:** Topical erythromycin (Ery-derm and others), clindamycin (Cleocin-T and others) and sulfa drugs are dabbed onto acne lesions once or twice a day and fight the local infection. An excellent combination treatment often used is Retin-A at bed and Cleocin-T or Ery-derm in the morning.

**Oral antibiotics:** Tetracycline, doxycycline or erythromycin are often used orally for

acne. While often effective, they kill bacteria everywhere in the body (not just the skin) and can upset the stomach. Tetracycline can make hormonal contraceptive methods (the birth control pill, patch, etc.) less effective, as well as cause birth defects. In addition, tetracycline and doxycycline can make some patients sensitive to increased sunburn. However, oral antibiotics are easy to use and relatively inexpensive, so many patients like them.

**Differin (adapalene) gel:** Differin gel is similar to Retin A and is also applied at bedtime. It acts by unclogging pores and gently peeling the face (a keratolytic agent). Precautions similar to Retin A are also advised (sunscreens, etc.).

**Hormonal Contraceptives:** Some, but not all, hormonal contraceptive methods (birth control pills and patches, etc.) improve acne by suppressing ovarian over-secretion of androgenic (male) hormones. If you aren't sure whether your hormonal birth control method will make your acne better or worse, ask your healthcare provider.

**Accutane (isotretinoin) orally:** This medication is reserved for the most severe, scarring, nodular and cystic acne and can lead to profound improvements. But like the little girl with the curl, when it is bad, it is horrid. Accutane can cause severe birth defects (therefore female patients during child bearing years must be on a contraceptive method to receive a prescription), severe liver inflammation, depression, bone mineral density problems and has led to deaths. It can only be prescribed by board-certified dermatologists on special prescription pads and requires lengthy consent forms and monthly blood tests.

**Prevention:** The American Academy of Dermatology has some good tips about what works – and what does not work – in preventing acne. (<http://www.aad.org/pamphlets/acnepamp.html>.) Here are some quotes:

- **Cleansing:** “The black in a blackhead is dried oil and shed skin cells in the openings of the hair follicles, not dirt. For the normal care of your skin, wash your face with soap and warm water twice a day. Acne is not caused by dirt. Washing too often or too vigorously may actually make your acne worse. Regular shampooing is also recommended. If your hair is oily, you may want to wash it more often. Your dermatologist can recommend the best face and hair washing routine.”
- **Shaving:** “Men with acne who shave should try both an electric and a safety razor to see which is more comfortable. If you use a safety razor, soften your beard thoroughly with soap and warm water before applying shaving cream. To avoid nicking pimples, shave as lightly as possible. Shave only when necessary and always use a sharp blade.”
- **Diet:** “Acne is not caused by the foods you eat. Dermatologists have differing opinions on the importance of your diet in the management of acne. One thing is certain; a strict diet by itself will not clear your skin. On the other hand, if certain foods seem to make your acne worse, then try to avoid them. But be careful about jumping to conclusions, acne may get better or worse on its own. It is always important to eat a well balanced diet.”
- **Sunlight:** “A tan can mask your acne, but the benefits are temporary. Since sunlight ages the skin and can cause skin cancer, you should not sunburn, ‘bake in the sun,’ or use sunlamps. Choose a sunscreen that is oil-free, such as a gel or light lotion.”
- **Cosmetics:** “If you wear a liquid foundation or use a moisturizer, look for ones that are oil-free and not just water-based. Choose products that are ‘non-comedogenic’

(should not cause whiteheads or blackheads) or 'non-acnegenic' (should not cause acne). Remove your cosmetics every night with soap and water. Shield your face when applying hairsprays and gels.”

So, remember that while there is no cure for acne, it can be made better—all you have to do is ask.

Michael J. Huey, MD, 1992, revised 2004

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### **Helpful Links:**

The American Academy of Family Physicians patient information web site (familydoctor.org) at <http://familydoctor.org/x2675.xml>.

The American Academy of Dermatology patient education web site at <http://www.aad.org/pamphlets/acnepamp.html>.